this test in about 60 cases of suspected pancreatic disease, and find it a useful additional aid in diagnosis.

More recently Heiberg²¹ has introduced a modification of Gross's test, in which a series of progressive dilutions of the faecal extract are incubated for a fixed time with the same quantity of casein solution. This method has the merit of frequently shortening the time of the examination, and also enables the various samples to be examined together and compared. I have made use of this test, along with Gross's method, in the last 30 specimens that I have examined, and I find that the results compare very well. For the reasons I have mentioned, I think that Heiberg's method is to be preferred.

It must be remembered that these insufficiency tests only indicate very gross changes in the digestive functions of the pancreas, and so are only of limited value when taken alone, but when considered in conjunction with other methods of examining the faeces and urine they certainly assist one in arriving at a more reliable opinion as to the condition of the gland.

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GALL STONES: ACUTE PANCREATITIS: RECOVERY.

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THE following case appeared at the time to be one of great obscurity, and was not made clear until a laparotomy was performed.

On September 20th, 1909, I was called to a married woman, aged 35, who complained of acute spasmodic pain in the upper part of the abdomen and of constant retching and vomiting of all foodstuffs.

Previous History.

Her previous history gave evidence of a gouty diathesis with a disposition to asthma and muscular pains. Two years ago she had had an acute attack of abdominal pain, attributed to appendicitis, which entirely cleared up. She had a similar attack in the spring of 1909, which also cleared up. She stated that for several months she had had a constant dull pain under the right lower ribs, as if "there were something to come away," that she had had daily effortless vomiting of food, bringing up simply acid gastric contents, never any blood; that the bowels had always been constipated, requiring daily aperients. She had never been jaundiced, had had frequent attacks of distension of the abdomen, with flatulent eructations and rapid pulse-rate. She had always suffered from menorrhagia, and had had two children, the younger being 18 months old; at the last confinement she had phlegmasia dolens in both legs and pleurisy on the right side. Latterly she has fallen into very poor health.

Present Illness.

The present illness began with acute pain in the upper part of the abdomen, coming on spasmodically, leaving in the intervals a dull pain in the epigastrium; vomiting and retching was continuous; the bowels had not been moved for two days. The temperature was 99.6°, pulse 110, respirations 18; the abdomen was generally distended and tender all over, but tenderness on pressure was more marked over a point to the right of the umbilicus and a point in the epigastrium midway between the umbilicus and the right costal arch. There was no jaundice, the skin perspired freely, the heart, lungs, and urine were normal. She was ordered an opium mixture, which was vomited, and fluid nourishment.

Course.

On September 21st I found that vomiting continued, though a little fluid nourishment had been retained. Temperature normal, pulse 90; the distension of the abdomen continued, also the tenderness over the areas mentioned. The bowels freely moved with a cascara mixture. This attack subsided in three days; solids were taken easily, though occasionally vomited, and she was able to get up on a couch, but a certain amount of distension of the abdomen and the tenderness at the painful spots remained.

On September 30th she was again attacked with the same symptoms, and next day the symptoms were more severe, the abdomen more distended and more tender; temperature 99.6°; pulse 110. The bowels had been relieved by aperients and she was given morphine $\frac{1}{2}$ grain. She had no sleep for two nights.

Mr. Moynihan, of Leeds, saw her in consultation on October 3rd. The abdomen was very distended but moving slightly with respiration; the painful areas to the right of the umbilicus and in the right of the epigastrium were very tender. Temperature 100°; pulse 114 to 120; respiration normal. There was also a sensation of great soreness over the lower ribs on both sides. Mr. Moynihan considered the condition one of appendicitis primarily, complicated with gall stones, and advised waiting for the acute symptoms to pass and an operation in a quiet interval.

The same night the patient became very ill. The temperature on the morning of October 4th was 100.2°; pulse, 130. She had had a sleepless night, with great pain in the abdomen, so much so that $\frac{1}{2}$ grain of morphine was injected. The knees were drawn up, and the abdomen was much distended, very painful to touch, though still moving slightly with respiration. All food by the mouth was stopped, and nutrient enemata with saline solution given by the rectum. The patient developed the facies abdominalis, and for the first time was slightly jaundiced. An operation was again considered, but rejected, it being thought advisable to wait for the subsidence of the acute symptoms.

For two days this condition continued, when the symptoms began to subside, first fluids and then solids being taken by the mouth. The temperature varied from 98.4° to 100.2°, and the pulse from 100 to 128.

On October 6th the patient complained of acute pain over the lower ribs on the left side and just about the splenic area. The skin was acutely painful to the touch; a thin layer of fluid was made out over the base of the left lung. Firmly applied strapping relieved the pain and enabled the patient to breathe comfortably.

On October 10th the patient was taking soft solids; temperature normal and pulse 100. The jaundice had disappeared but the pain in the left side continued; the abdomen had subsided, but became suddenly distended at times, the distension being invariably relieved by turpentine enemata; the before-mentioned painful areas still remained tender.

This condition continued until October 21st, when all the symptoms returned with full force—retching, copious vomiting, and hiccough—with the same peristaltic pain and distension in the abdomen; pulse 110 to 126, temperature 100.2°. Her aspect was that of acute illness—dusky lips and dusky patch on each cheek, the legs were drawn up, and pain was complained of with the slightest movement, though the abdomen still moved slightly with respiration.

Operation.

This condition continued until October 23rd, when a laparotomy was performed by Mr. Moynihan. An incision was made in the right linea semilunaris from the costal border to just below the umbilicus. The appendix was first searched for; the caecum was pulled up and the appendix removed; there were some adhesions about its base, and it was long and of a small lumen. There was no other change. It was noticed that the whole of the large intestine was much distended. The gall bladder was next examined; small gall stones were felt in it. A general survey of the abdomen was then made; some adhesions were discovered about the tail of the pancreas, and on separating these several ounces of blood escaped, showing that there had been a recent haemorrhage about the pancreas at the splenic end. Patches of fat necrosis were then found scattered about the omental and mesenteric fat, more marked in the neighbourhood of the haemorrhage; there was a patch on the mesentery of the removed appendix; on gently examining the whole pancreas it was found very much swollen, but there were no further haemorrhages. The gall bladder was then opened, and some dozen or so small rounded gall stones removed; the bile ducts were explored and found free from stones; the ampulla of Vater was found empty. A large rubber tube was then inserted into the gall bladder, which was drained in the usual way. The pulse-rate during the operation rose to 150.

After-History.

The patient made an uneventful recovery; the gall bladder was drained for three months, and then allowed to close.

MISS ELLEN ELIZABETH BOND, of Lancaster, who died last May, has set aside the residue of her estate, amounting to about £10,000, on trust for the erection of a sanatorium for the relief and cure of consumptives. There is a proviso that if a more beneficial cure has in the interim been found than the open-air treatment, then the money shall go to a home for incurables. She desires the home shall be erected in the neighbourhood of Lancaster, and that the residents of the latter borough shall have first claim; further, that the sanatorium be called "The James Bond Sanatorium for Consumptives," and that rooms be called after her brothers, John Bond and Edward Thomas Bond. The testatrix makes certain suggestions to the trustees, but specifies that they are not binding, the trustees having absolute discretion in the matter.